

What is claimed is:

1. A magnetoresistive effective element comprising a magnetoresistive effective film, magnetic domain-controlling films, a first magnetic shielding film, a second magnetic shielding film and antiferromagnetic films,

said magnetic domain-controlling films being disposed at both sides of said magnetoresistive effective film in a width direction thereof, respectively, and imparting control function of magnetic domain to said magnetoresistive effective film,

said first magnetic shielding film being disposed on one surface of said magnetoresistive effective film in a thickness direction thereof,

said second magnetic shielding film being disposed on the other surface of said magnetoresistive effective film in said thickness direction thereof,

said antiferromagnetic films being disposed in between said first magnetic shielding film and said second magnetic shielding film, adjacent to and bonded through exchange interaction with at least one of said first magnetic shielding film and said second magnetic shielding film.

2. The magnetoresistive effective element as defined in claim 1, further comprising a first electrode film and a second electrode film,

said first electrode film being adjacent to one surface of said magnetoresistive effective film,

said second electrode film being adjacent to the other surface of said magnetoresistive effective film.

3. The magnetoresistive effective element as defined in claim 2, wherein said first electrode film serving as said first magnetic shielding film, and said second electrode film serving as said second magnetic shielding film.

4. The magnetoresistive effective element as defined in claim 3, wherein said antiferromagnetic films are adjacent to and bonded through exchange interaction with said first magnetic shielding film.

5. The magnetoresistive effective element as defined in claim 3, wherein said antiferromagnetic films are adjacent to and bonded through exchange interaction with said second magnetic shielding film.

6. The magnetoresistive effective element as defined in claim 3, wherein said antiferromagnetic films are adjacent to and bonded through exchange

interaction with said first magnetic shielding film and said second magnetic shielding film.

7. The magnetoresistive effective element as defined in any one of claims 4-6, wherein said antiferromagnetic films are disposed at both sides of said magnetoresistive effective film in said width direction thereof, respectively.

8. The magnetoresistive effective element as defined in any one of claims 4-7, wherein said antiferromagnetic films exhibit electrical insulation.

9. The magnetoresistive effective element as defined in claim 8, wherein said antiferromagnetic films are made of at least one selected from the group consisting of NiO, CoO and Fe₂O₃.

10. The magnetoresistive effective element as defined in any one of claims 4-9, further comprising electrical insulating layers between said antiferromagnetic films and said magnetic domain-controlling films.

11. The magnetoresistive effective element as defined in claim 6, wherein said antiferromagnetic films embed a space formed by said magnetic domain-controlling film, said first magnetic shielding film and said second magnetic shielding film, and is bonded with said magnetic domain-controlling film through exchange interaction.

12. The magnetoresistive effective element as defined in any one of claims 4-7, wherein said antiferromagnetic films exhibit electrical conduction.

13. The magnetoresistive effective element as defined in claim 12, wherein said antiferromagnetic films are made of at least one selected from the group consisting of FeMn, PtMn, IrMn, NiMn and CrPtMn.

14. The magnetoresistive effective element as defined in claim 12, further comprising electrical insulating layers between said antiferromagnetic films and said magnetic domain-controlling films.

15. The magnetoresistive effective element as defined in any one of claims 1-6, wherein said magnetoresistive effective film is made of a spin valve film.

16. The magnetoresistive effective element as defined in claim 7, wherein said magnetoresistive effective film is made of a spin valve film.

17. The magnetoresistive effective element as defined in claim 11, wherein said magnetoresistive effective film is made of a spin valve film.

18. The magnetoresistive effective element as defined in any one of claims 1-6, wherein said magnetoresistive effective film is made of a ferromagnetic tunnel junction film.

19. The magnetoresistive effective element as defined in claim 7, wherein said magnetoresistive effective film is made of a ferromagnetic tunnel junction film .

20. The magnetoresistive effective element as defined in claim 11, wherein said magnetoresistive effective film is made of a ferromagnetic tunnel junction film .

21. A thin film magnetic head comprising a magnetoresistive effective element as defined in any one of claims 1-6 and a slider to support said magnetoresistive effective element.

22. A thin film magnetic head comprising a magnetoresistive effective element as defined in claim 7 and a slider to support said magnetoresistive effective element.

23. A thin film magnetic head comprising a magnetoresistive effective element as defined in claim 11 and a slider to support said magnetoresistive effective element.

24. A magnetic head device comprising a thin film magnetic head as defined in claim 21 and a head supporting device to support said thin film magnetic head.

25. A magnetic head device comprising a thin film magnetic head as defined in claim 22 and a head supporting device to support said thin film magnetic head.

26. A magnetic head device comprising a thin film magnetic head as defined in claim 23 and a head supporting device to support said thin film magnetic head.

27. A magnetic recording/reproducing device comprising a magnetic head device as defined in claim 24 and a magnetic recording medium to be magnetically written and read with cooperated with said magnetic head device.

28. A magnetic recording/reproducing device comprising a magnetic head device as defined in claim 25 and a magnetic recording médium to be magnetically written and read with cooperated with said magnetic head device.

29. A magnetic recording/reproducing device comprising a magnetic head device as defined in claim 26 and a magnetic recording medium to be magnetically written and read with cooperated with said magnetic head device.